now amended, are patentably distinguishable over the prior art and in condition for allowance.

AMENDED CLAIMS:

Please amend the claims as follows:

1. (thrice amended) A method in a data processing system for displaying versions of source code, each version reflecting an instance in an edit history, the method comprising the steps of:

determining a language of the source code;

storing indications of the edits to the source code;

converting the source code with the indications of the edits from the language into a language-neutral representation;

using the language-neutral representation to display the converted source code ~~in the language~~ with the indications of all the source code edits; and

using the language-neutral representation to display a corresponding graphical representation of the source code with the indications of all the edits, showing visual differences of the source code through time,

wherein the graphical representation of the converted source code is not an alpha-numeric display and is not merely a text representation on a user interface.

2. (presently amended) The method of claim 1, wherein the source code and the corresponding graphical representation of the converted source code are displayed sequentially.

3. (original) The method of claim 1, wherein a rate at which the source code with the indications of the edits is displayed is adjustable.

4. (original) The method of claim 1, wherein the source code with the indications of the edits is displayed in reverse order.

5. (previously amended)The method of claim 1, wherein the graphical representation is one of the group consisting of a use case diagram, a sequence diagram, a collaboration diagram, a state transition diagram, an activity diagram, a package diagram, a component diagram and a deployment diagram.

6. (thrice amended)A method in a data processing system for displaying versions of source code, each version reflecting an instance in an edit history, the method comprising the steps of:

storing indications of the edits to the source code; and

displaying the versions of the source code with the indications of the edits wherein the source code is represented graphically on a user interface in a language-neutral representation for showing differences in the source code over time using graphical representations that are not merely alpha-numeric or text-based display.

~~language-neutral representation.~~

7. (original) The method of claim 6, wherein the versions of the source code are displayed sequentially.

8. (original) The method of claim 6, wherein a rate at which the source code with the indications of the edits is displayed is adjustable.

9. (original) The method of claim 6, wherein the source code with the indications of the edits is displayed in reverse order.

10. (original) The method of claim 6, wherein the versions of the source code are displayed with a corresponding graphical representation for each version.

11. (thrice amended)The method of claim 10, wherein the step of displaying the versions of source code comprises the steps of:

determining a language of the source code;

converting the source code with the indications of the edits from the language into a language-neutral representation that is not merely alpha-numeric or text-based display;

using the language-neutral representation to display the converted source code ~~in the language~~ with the indications of the edits; and

using the language-neutral representation to display the corresponding graphical representation of the source code with the indications of the edits, wherein the graphical representation of the source code is not merely a text representation on a user interface.

12. (original) The method of claim 10, wherein the graphical representation is one of the group consisting of a class diagram, a use case diagram, a sequence diagram, a collaboration diagram, a state transition diagram, an activity diagram, a package diagram, a component diagram and a deployment diagram.

13. (previously amended)A method in a data processing system for displaying versions of source code, the method comprising the steps of:

storing an edit to the source code;

displaying the source code and a graphical representation of the source code for showing differences in the source code over time using graphical

representations that are not merely alpha-numeric or text-based display; and

displaying the source code with the edit and a graphical representation of the source code with the edit, wherein the graphical representation of the source code is not merely a text representation on a user interface.

14. (presently amended) The method of claim 13, wherein the step of displaying the source code comprises the steps of:

determining a language of the source code;

converting the source code from the language into a language-neutral representation; and using the language-neutral representation to display ~~the graphical representation of~~ the converted source code.

15. (presently amended) The method of claim 13, wherein the step of displaying the source code with the edit comprises the steps of:

converting the source code with the edit from the language into a language-neutral representation; and

using the language-neutral representation of the converted source code with the edit to display the graphical representation of the source code with the edit.

16. (presently amended) The method of claim 13, wherein the source code is displayed after the converted source code with the edit is displayed.

17. (twice amended)A computer-readable medium containing instructions for controlling a data processing system to perform a method, the data processing system having versions of source code, each version reflecting an instance in an edit history, the method comprising the steps of:

determining a language of the source code;

storing indications of the edits to the source code;

converting the source code with the indications of the edits from the language into a language-neutral representation that is not merely alpha-numeric or text-based display;

using the language-neutral representation to display the converted source code ~~in the language~~ with the indications of the edits; and

using the language-neutral representation to display a corresponding graphical representation of the source code with the indications of the edits; wherein the graphical representation of the source code is not merely a text representation on a user interface.

18. (original) The computer-readable medium of claim 17, wherein the source code and the corresponding graphical representation of the source code are displayed sequentially.

19. (original) The computer-readable medium of claim 17, wherein a rate at which the source code with the indications of the edits is displayed is adjustable.

20. (original) The computer-readable medium of claim 17, wherein the source code with the indications of the edits is displayed in reverse order.

21. (original) The computer-readable medium of claim 17, wherein the graphical representation is one of the group consisting of a class diagram, a use case diagram, a sequence diagram, a collaboration diagram, a state transition diagram, an activity diagram, a package diagram, a component diagram and a deployment diagram.

22. (previously amended)A computer-readable medium containing instructions for controlling a data processing system to perform a method, the data processing system having versions of source code, each version reflecting an instance in an edit history, the method comprising the steps of:

storing indications of edits to the source code; and

displaying the versions of the source code with the indications of the edits in a graphical representation, which show differences in the source code over time using graphical representations that are not merely alpha-numeric or text-based display, wherein the graphical representation of the source code is not merely a text representation on a user interface.

23. (original) The computer-readable medium of claim 22, wherein the versions of the source code are displayed sequentially.

24. (original) The computer-readable medium of claim 22, wherein a rate at which the source code with the indications of the edits is displayed is adjustable.

25. (original) The computer-readable medium of claim 22, wherein the source code with the indications of the edits is displayed in reverse order.

26. (original) The computer-readable medium of claim 22, wherein the versions of the source code are displayed with a corresponding graphical representation for each version.

27. (presently amended) The computer-readable medium of claim 26, wherein the step of displaying

the versions of source code comprises the steps of:

determining a language of the source code;

converting the source code with the indications of the edits from the language into a language-neutral representation;

using the language-neutral representation to display the converted source code ~~in the language~~ with the indications of the edits; and

using the language-neutral representation to display the corresponding graphical representation of the source code with the indications of the edits.

28. (original) The computer-readable medium of claim 26, wherein the graphical representation is one of the group consisting of a class diagram, a use case diagram, a sequence diagram, a collaboration diagram, a state transition diagram, an activity diagram, a package diagram, a component diagram and a deployment diagram.

29. (previously amended)A computer-readable medium containing instructions for controlling a data processing system to perform a method, the data processing system having source code, the method comprising the steps of:

storing an edit to the source code;

displaying the source code and a graphical representation of the source code showing differences in the source code over time using graphical representations that are not merely alpha-numeric or text-based display; and

displaying the source code with the edit and a graphical representation of the source code with the edit; wherein the graphical representation of the source code is not merely a text representation on a user interface.

30. (original) The computer-readable medium of claim 29, wherein the step of displaying the source code comprises the steps of:

determining a language of the source code;

converting the source code from the language into a language-neutral representation; and

using the language-neutral representation to display the graphical representation of the converted source code.

31. (original) The computer-readable medium of claim 29, wherein the step of displaying the source code with the edit comprises the steps of:

converting the source code with the edit from the language into a language-neutral representation; and

using the language-neutral representation of the converted source code with the edit to display the graphical representation of the source code with the edit.

32. (original) The computer-readable medium of claim 29, wherein the source code is displayed after the source code with the edit is displayed.

33. (previously amended)A data processing system comprising:

a secondary storage including source code;

a memory device including:

a program that stores indications of edits to the source code into the memory device, and that displays the source code with the indications of the edits and a corresponding graphical representation showing differences in the source code over time using graphical representations that are not merely alpha-numeric or text-based display, wherein the graphical representation of the

source code is not merely a text representation on a user interface of the source code with the indications of the edits; and

a processor for running the program.

34. (original) The data processing system of claim 33, wherein the source code with the indications of the edits are displayed sequentially.

35. (original) The data processing system of claim 33, wherein a rate at which the source code with the indications of the edits is displayed is adjustable.

36. (original) The data processing system of claim 33, wherein the source code with the indications of the edits is displayed in reverse order.

37. (original) The data processing system of claim 33, wherein the program further

determines the language of the source code, converts the source code with the indications of the edits from the language into a language-neutral representation, uses the language-neutral representation to display the source code with the indications of the edits in the language, and uses the language-neutral representation to display the corresponding graphical representation of the source code with the indications of the edits.

38. (amended) The data processing system of claim 37, wherein the memory device further comprises a transient meta model, wherein said transient meta model stores the ~~languageneutral~~ language neutral representation of the source code.

39. (original) The data processing system of claim 33, wherein the graphical representation

is one of the group consisting of a class diagram, a use case diagram, a sequence diagram, a collaboration diagram, a state transition diagram, an activity diagram, a package diagram, a component diagram and a deployment diagram.

a processor for running the program.

40. (previously amended)A system for displaying versions of source code, each version reflecting an instance in an edit history, the system comprising:

means for storing indications of the edits to the source code; and

means for displaying the versions of the source code with the indications of the edits in a graphical representation showing differences in the source code over time using graphical representations that are not merely alpha-numeric or text-based display, wherein the graphical representation of the source code is not merely a text representation on a user interface.

ARGUMENTS

Rejection of Claims 1-40 under 35 U.S.C. 102

In the 09/24/2003 Office Action, claims 1-40 have been rejected on prior art grounds, under 35 U.S.C 102, as follows:

Claims 1-40 are rejected under 35 USC 102(b) as being anticipated by Per Cederqvist et al. (Version Management with CVS for CVS 1.11.3, 1992, 1993).

The above rejections of the claims 1-40 on the stated art grounds are traversed, and consideration of the patentability of the claims 1- 40 is requested, in light of the ensuing remarks.

Arguments for Patentability

On page 3 of the office action response, the examine cites, as an example of converting source code into a language-neutral representation, the following from the CVS manual: "10.3 Conflicts example, page 62-64, shows differences between old and modified versions of the program file,....."

The examine errs, in that there is ***no conversion of source code of any kind into a language-neutral format on these pages, nor in CVS generally***. This is demonstrated by the fact that the manual states that a conflict in the source code can be resolved by "editing the file, removing the markers and the erroneous line." The example shown is:

```
else
        fprintf(stderr, "No code generated./n");
<<<<<<< driver.c
        exit(nerr == 0 ? EXIT_SUCCESS : EXIT_FAILURE);
```

=======

exit(!!nerr);

>>>>>>> 1.6

}.

Not that this example is written in this document using word processing functions only. Note that the source code differences were isolated and delineated using standard keyboard characters and cannot be manipulated using drawing functions, which would have required a mouse. These facts demonstrate that the source code is displayed in text.

The examine further cites CVS manual Section 5.3 Accessing branches show different version numbers, pages 42-44, as an example of source code conversion in CVS.

Again the examiner errs, in that branches identifiers are not representations of source code. Branch identifiers are identifiers of an entire source code version, not source code *per se* or source code edits. Branch identifiers cannot provide the function described and claimed in the present invention.

The examiner also states on page 3 that "Notepad and other graphical representations are not only displayed the source code **in text,** but also provide multiple control icons for users to select from."

The examiner thus agrees that the ***source code is displayed in text in CVS***. Furthermore, the examiner's statement that ".....Notepad and other graphical representations provide multiple control icons for the user to select from", given the examiner's statement the source code is displayed **in text**, can only lead to the conclusion

that the examiner is describing **text** control icons provided by the Notepad graphical user interface, not graphical elements of a diagram.

The examiner is perchance confusing the graphical representation of the source code according to the present invention with the graphical control icons of a graphical user interface (GUI). Note that these are not the same, as demonstrated in Figure 13.

Lines 23-25 of Page 24 state: "A class diagram 1300, depicted in Fig. 13 with its associated source code 1302, on the other hand, includes classes 1304, interfaces, packages and their relationships connected as a graph to each other and to their contents."

Note that these graphical representations of the source code are different from the GUI control icons shown at the top and right of the screenshot shown in Figure 13.

The above rejections of the claims 1-40 on the stated art grounds are traversed, and consideration of the patentability of the claims 1- 40 is requested, in light of the foregoing remarks.

Claims 1-40 are asserted to be in patentable condition. Allowance of these claims is hereby respectfully requested. In the event that the Examiner finds additional minor modifications that would place these claims in allowable condition, the Examiner is respectfully requested to make telephonic contact with the Attorney of Record to discuss and make changes via Examiner's Amendment to place the claims in condition for allowance.

The above rejections of the claims 1-40 on the stated art and utility grounds are traversed, and consideration of the patentability of the claims 1-40 is requested, in light of the foregoing remarks. Favorable action is therefore requested.

COMMENTS

If any issues remain outstanding, incident to the allowance of the application, Examiner Chuong is respectfully requested to contact the undersigned attorney at (919)-664-8222 or via email at jinang@trianglepatents.com to discuss the resolution of such issues, in order that prosecution of the application may be concluded favorably to the applicant, consistent with the applicant's making of a substantial advance in the art and particularly pointing out and distinctly claiming the subject matter that the applicant regards as the invention.

This Request for Continued Examination is submitted via fax on March 19, 2004 to the official group fax number 703.872.9306.

Respectfully submitted,

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